

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1 to 7. (Canceled).

8. (Previously Presented) A method for operating a voice-controlled system in a motor vehicle, comprising the steps of:

detecting a total signal by a plurality of microphones, the total signal including a voice signal and a background noise signal;

performing a frequency shift by an amount of ΔF on the total signal detected by each microphone;

subtracting the frequency-shifted total signal of a first one of the plurality of microphones from the detected total signal of a second one of the plurality of microphones before shifting the frequency of the total signal of the second one of the plurality of the microphones and vice versa; and

transmitting the frequency-shifted total signal to one of an input to a voice-controlled device and at least one loudspeaker.

9. (Previously Presented) The method according to claim 8, wherein the voice-controlled system includes at least one of a communication device and a two-way intercom device.

10. (Previously Presented) The method according to claim 8, further comprising the steps of:

defining an arbitrary acoustic model based on the detected total signals; and

transmitting a signal corresponding to the acoustic model to a respective summation point for subtraction from the detect total signal before the respective frequency shifting.

11. (Previously Presented) The method according to claim 10, wherein a passenger compartment of the motor vehicle is divided into at least two acoustic subspaces, each of the acoustic subspaces including at least one microphone location and at least one loudspeaker location;

and wherein the frequency shift is performed between the microphone location of one of the subspaces and the loudspeaker location of another one of the subspaces;

and wherein each acoustic model is defined between the microphone location and the loudspeaker location of the respective acoustic subspace to thereby form a signal-based, closed loop electroacoustical control circuit.

12. (Previously Presented) The method according to claim 11, wherein each acoustic model is defined in accordance with voice and noise signals detected in the respective acoustic subspace and additional noise signals detected in the entire passenger compartment so that after the signal corresponding to the acoustic model is subtracted from the total signal substantially only the voice signal remains.

13. (Previously Presented) A device for operating a voice-controlled system in a motor vehicle, the motor vehicle including a passenger compartment divided into at least two subsections, each subsection including at least one microphone and at least one loudspeaker, the device comprising:

a transmitter for transmitting at least one of voice messages and voice commands;

a frequency-shifting device connected between the microphones of one of the subsections and the loudspeakers of another one of the subsections; and

a summation point corresponding to each subsection, the summation point subtractively superimposing a parallelly tapped loudspeaker signal and the microphone signal of the respective subsection.

14. (Previously Presented) The device according to claim 13, wherein the voice-controlled system includes at least one of a communication device and a two-way intercom device.

15. (Previously Presented) The device according to claim 13, wherein the subsections are open subsections.

16. (Previously Presented) The device according to claim 13, further comprising an acoustic model generator provided between each parallel tapped loudspeaker signal and the respective summation point, the acoustic models generated at least one of controlling and postprocessing the respective loudspeaker signal, a resulting signal from each acoustic model generator being transmitted to the respective summation point.

17. (Previously Presented) The device according to claim 16, wherein the acoustic model generators include sound pattern detectors for separating engine and driving noises from speech-generated acoustical signals and for separating speech-generated signals from fed-back echo signals.

18. (Currently Amended) A [[The]] method according to claim 8 for operating a voice-controlled system in a motor vehicle, comprising the steps of:

detecting a total signal by a plurality of microphones, the total signal including a voice signal and a background noise signal;

performing a frequency shift by an amount of ΔF on the total signal detected by each microphone;

subtracting the frequency-shifted total signal of a first one of the plurality of microphones from the detected total signal of a second one of the plurality of microphones before shifting the frequency of the total signal of the second one of the plurality of the microphones and vice versa; and

transmitting the frequency-shifted total signal to one of an input to a voice-controlled device and at least one loudspeaker,

wherein ΔF is 5 Hz.

19. (Currently Amended) A [[The]] method according to claim 8 for operating a voice-controlled system in a motor vehicle, comprising the steps of:

detecting a total signal by a plurality of microphones, the total signal including a voice signal and a background noise signal;

performing a frequency shift by an amount of ΔF on the total signal detected by each microphone;

subtracting the frequency-shifted total signal of a first one of the plurality of microphones from the detected total signal of a second one of the plurality of microphones before shifting the frequency of the total signal of the second one of the plurality of the microphones and vice versa; and

transmitting the frequency-shifted total signal to one of an input to a voice-controlled device and at least one loudspeaker,

wherein the frequency shift performed on the total signal of the first microphone is by a first amount ΔF , and the frequency shift performed on the total signal of the second microphone is by a second amount ΔF different than the first amount ΔF .

20. (Currently Amended) A [[The]] device according to claim 13 for operating a voice-controlled system in a motor vehicle, the motor vehicle including a passenger compartment divided into at least two subsections, each subsection including at least one microphone and at least one loudspeaker, the device comprising:

a transmitter for transmitting at least one of voice messages and voice commands;
a frequency-shifting device connected between the microphones of one of the subsections and the loudspeakers of another one of the subsections; and
a summation point corresponding to each subsection, the summation point subtractively superimposing a parallelly tapped loudspeaker signal and the microphone signal of the respective subsection,

wherein the frequency-shifting device is configured to perform a frequency shift by an amount of ΔF on each microphone signal.

21. (Previously Presented) The device according to claim 20, wherein ΔF is 5 Hz.